NEW FACULTY 101: AN ORIENTATION TO THE PROFESSION

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Abstract — *In August 2000 the North Carolina State University College of Engineering with partial sponsorship from the SUCCEED Coalition organized and presented a one-week orientation workshop for new faculty members. The workshop goal was to equip new faculty members to become what Robert Boice calls "quick starters," who meet or exceed their institution's expectations for both research productivity and teaching effectiveness in their first one to two years. Two days were devoted to research program startup and management, two to effective teaching, and the final morning to managing time, integrating into campus culture, and earning tenure and promotion. The participants were unanimously and overwhelmingly positive in their responses following the workshop, and their enthusiasm has continued at gatherings and in surveys in the months that followed. This paper describes the workshop content and activities, summarizes follow-up support and assessment plans, and offers suggestions for planning and implementing similar programs.*

Index Terms — *Faculty development, new faculty, quick starters, workshop.*

INTRODUCTION

College teaching may be the only skilled profession that neither presumes experience nor routinely provides training to its novice practitioners. New faculty members at most universities have traditionally had to learn by themselves how to plan research projects, identify and cultivate funding sources, write proposals and get them funded, attract and supervise graduate students, and present their research results in an effective manner. They have also had to teach themselves how to devise stimulating lectures and rigorous but fair assignments and tests, how to motivate students to want to learn and how to make them active participants in the learning process, and how to help them develop critical problem-solving, communication, and teamwork skills. Perhaps hardest of all, they have had to figure out how to balance the competing time demands of teaching, research, and other professional and personal responsibilities. Learning all these things by trial and error usually takes years. Some new faculty members eventually learn them; others never do and either fail to earn tenure or spend their careers as unproductive researchers and/or ineffective teachers.

In the absence of systematic guidance, new faculty make common mistakes that lead to low scholarly productivity, ineffective teaching, and high stress levels. In studies spanning a number of institutions and disciplines, Boice [1] found that most new faculty

- give a high verbal priority to scholarly writing and research while spending relatively little time on them and having relatively little to show for the time they spend;
- equate good teaching with correct content and use lecturing as the exclusive mode of instruction;
- equate improving their teaching with improving their lecture notes;
- spend up to 27 hours a week per course preparing for classes, put so much material into their lectures that they must rush to cover it all, and leave little time for interaction and discussion with students;
- teach defensively to avoid student complaints but get low teaching evaluations anyway;
- express a sense of isolation from their colleagues.

In consequence, most new professors take between four and five years to bring their research productivity and teaching effectiveness to a level that meets institutional standards.

There were notable exceptions, however. Roughly 10% of Boice's subjects managed to meet or exceed expectations for both research and teaching within their first two years. These *quick starters* did several things differently from their colleagues, including

- scheduling regular time for writing (usually daily) and produced enough to meet or exceed their university's expectations;
- integrating their research into their lectures, conveying a sense of excitement about the field to their students;
- teaching at a slower pace, leaving more time for student questions and interactions;
- limiting course preparation time after the first offering to less than 1.5 hours of preparation for each hour of lecture, thereby freeing time for writing, research, and networking; and
- networking with colleagues 2-4 hours each week, forming connections that helped them with both

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teaching and research and eased their integration into the academic community.

Boice developed a program to enable all new faculty members to do the things that came naturally to the quick starters. Individuals who followed this program showed clear improvement in attitudes and performance after 10–12 weeks.

In November 1999, Rebecca Brent and Richard Felder presented a workshop on Mentoring and Supporting New Faculty Members to the Dean, Associate Deans, Department Heads, and senior faculty of the North Carolina State University College of Engineering. (The workshop content has been described elsewhere [2].) In the ensuing discussion, one of the heads proposed a week-long new faculty orientation workshop covering research, teaching, and integrating into the campus culture that would be an extension of the annual teaching effectiveness workshop presented to engineering faculty in the prior ten years. All present agreed that such a workshop would be a valuable addition to the College of Engineering faculty development program, and the Dean agreed to allocate new faculty summer support funds to bring the new faculty members to campus before the beginning of the Fall 2000 semester so they could attend it. Dr. Brent, agreed to serve as workshop coordinator. Early in the Spring 2000 semester, she and Dr. Felder drafted an outline of the proposed workshop, and in the period from February to July the authors completed the workshop design.

In August 2000 the North Carolina State University College of Engineering with partial support from the Southeastern University and College Coalition for Engineering Education (SUCCEED) presented the workshop to 17 new engineering faculty members (16 tenure-track) representing eight departments and two visiting engineering professors. The North Carolina State College of Physical and Mathematical Sciences and the Director of the Cornell University Center for Teaching and Learning sent observers to evaluate the possibility of offering similar workshops in 2001. Presenters and panelists included the Dean of Engineering and the four Associate and Assistant Deans, four current or former department heads, eight other engineering faculty members, and the Head of the N.C. State Faculty Center for Teaching and Learning.

The workshop ran from 8:30 to 4:30 on Monday through Thursday and from 8:30 to noon on Friday, with lunch and breaks provided on all five days. The workshop began with a review of Boice's work on new faculty members and quick starters, and the remainder of the first two days were devoted to effective course planning, teaching, and advising; the next two days were spent on research program startup and management; and the final morning concerned time management, integrating into the campus culture, and earning tenure and promotion.

Participants were instructed to bring materials for a course they were planning to teach and a proposal they were planning to submit. Several times during the week the attendees modified the course materials and the proposal to incorporate ideas presented in the workshop; and they reviewed their plans periodically with members of fixed base groups of fellow participants. Each participant received (1) a notebook containing copies of transparencies shown during the workshop along with supplementary material, (2) *Advisor, Teacher, Role Model, Friend* (a publication of the National Academy Press), and (3) *Teaching Tips* by Wilbert McKeachie, the last of these donated by the NCSU Faculty Center for Teaching and Learning. The participants were unanimously and overwhelmingly positive in their responses following the workshop, and their enthusiasm has continued at gatherings and in surveys in the months that followed.

This presentation describes the workshop content and activities, summarizes follow-up support and assessment plans, and offers suggestions for planning and implementing similar programs.

WORKSHOP ORGANIZATION AND CONTENT

Day 1. Introduction, Effective Teaching

- Welcome and introductions
- Problems of new faculty members, characteristics of "quick starters," and overview of the workshop
- How students learn, how teachers teach, and what often goes wrong (learning and teaching styles)
- How to plan a course, write a syllabus and learning objectives, motivate students to learn, and get things off to a good start
- How to create tests that are both rigorous and fair. How to assess learning in ways other than tests

Day 2. Effective Teaching (Continued).

- How to make lecturing effective
- How to get students actively involved, even if there are 150 of them in the class
- Technology-based course delivery—what is it, how to do it, and campus resources that support it
- Crisis Clinic: How to deal with problems involving classroom management, students with emotional problems, and cheating
- How to advise undergraduates effectively
- The NCSU Faculty Center for Teaching and Learning— programs, resources, and services
- Course planning exercise and wrap-up of section on teaching

Day 3. Planning and Funding a Research Program

- How to define a research topic, organize a research team, and identify potential funding sources and campus resources for funding source identification

- How to plan a tentative budget, make initial contact with funding agencies, write a proposal narrative and detailed budget, get feedback and revise, and complete the submission process
- Mock visit to a funding agency program director
- Mock proposal review panel
- Introduction to multidisciplinary research (generation of possible joint research ideas by pairs of participants randomly assigned across disciplines)
- Walk-through of the College of Engineering Office of Research Administration

Day 4. Carrying out Research and Disseminating Results

- How to recruit graduate students and post-docs
- How to direct research, manage funds, collaborate with faculty colleagues and graduate students, and plan follow-up research
- Crisis Clinic: What to do if the grant doesn't come through, the equipment breaks down, the experiments fail, the graduate students disappoint, and the funding runs out before the project is complete
- How to wrap up a project (assessing outcomes, drawing inferences, writing final report to funding agency)
- How to choose a journal, find time to write, and maximize chances of acceptance. What to do if the submission is rejected or conditionally accepted with requests for major revision
- Panel on building a successful research program (research administrators, successful experienced and young researchers)

Day 5. Becoming a Successful Faculty Member

- Tips on time management
- Balancing the demands of teaching, research, service, and personal life (reprise of Boice's strategies for becoming a quick starter)
- Panel on succeeding in the academic community—networking, incentives and rewards, tenure and promotion. (Dean, Associate Deans, and several Department Heads)
- Closing remarks (Dean)
- Celebratory lunch

WORKSHOP EVALUATIONS

In the evaluations turned in on the fifth day, the workshop received 17 "excellent" ratings and no "good," "average," "fair," or "poor" ratings. The workshop content, notebook, and presenters also received primarily "excellent" ratings. All of the responders indicated that the workshop met their objectives and was enjoyable and that they would recommend it to others. Most felt that the right amount of time had been spent on every topic covered and some would have liked more coverage of some topics. The only topics

which more than one participant felt might have been shortened were the course planning exercise (three wanted less time on it, nine voted to keep it the same, and three wanted more), the section on wrapping up and disseminating (three wanted less time and 13 wanted the same amount), and the research panel (three wanted less time, 11 the same, and two more).

In their open comments in the evaluations and also in the conversations that followed the workshop, the participants commented favorably on nearly every aspect of the workshop content and presentation. Most importantly, they seemed to have gained a strong sense that they were an integral part of a supportive community, with an administration and senior faculty strongly committed to their success. The only consistently offered suggestion for change was to provide at least one long mid-week break for the participants to catch up with their other activities, and one of the participants suggested that more explicit details be presented regarding proposal budget preparation, especially what to do about release time. We believe there is merit in these ideas, and we will consider incorporating them in future offerings.

FUTURE PLANS

We are delighted with how smoothly the workshop went and with the participants' enthusiastic responses, particularly since this was a first-time offering. At the time this paper is being written we have had two successful workshop reunions at which the workshop participants compared notes on what they tried, what worked, and what problems they ran into. We will have at least one more such meeting this year. We are also planning to evaluate the workshop effectiveness, both by surveying the participants and by comparing teaching ratings and research productivity of participants and a control group of non-participating new faculty members. The results will be disseminated in "Supporting New Faculty" workshops on SUCCEED and non-SUCCEED campuses [2] and in journal articles and presentations at conferences.

ACKNOWLEDGMENT

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